PATENT
Atty Docket No. REAL0023

I HEREBY CERTIFY THAT ON JULY 14, 2008, THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: MAIL STOP APPEAL BRIEF - PATENT, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

STEVEN W. SMYRSKI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Group Art Unit: 2629
LENNY LIPTON ET AL.	Examiner: Jennifer T. Nguyen
Title: METHOD FOR ELIMINATING PI-CELL ARTIFACTS	
Serial No.: 09/766,130	
Filed: January 19, 2001	

APPELLANTS' BRIEF

Mail Stop Appeal Brief - Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the final rejection of the Examiner dated January 9, 2008 in the above-referenced application.

1. **Real Party in Interest**

The real party in interest is to StereoGraphics Corporation (a California corporation), which is a wholly-owned subsidiary of Real D (a California corporation), and an assignment of the application to the StereoGraphics Corporation is recorded at the United States Patent and Trademark Office at Reel 011631, Frame 0186.

2. **Related Appeals and Interferences**

There are no related appeals or interferences known to the Appellants.

3. **Status of the Claims**

Claims 1-20 are pending. All pending claims have been finally rejected. A complete listing of the claims as pending is reproduced in the Appendix.

The final rejection of claims 1-20 is the subject of this appeal.

4. **Status of Amendments**

No amendments were filed after the final rejection.

5. **Summary of Claimed Subject Matter**

An alternating unipolar carrier waveform is used to drive a pi-cell modulator. Specification, p. 15, ll. 2-3; see, e.g., FIG. 8. The pi-cell is driven by the carrier, but the carrier never changes polarity within the time period that the cell is energized. Specification, p. 15, ll. 3-4; FIG. 8. Each time the cell is energized, i.e. once per field, the polarity alternates. Specification, p. 15, ll. 4-5.

Pi-cells have generally been driven by an alternating polarity waveform of the sort shown in FIG. 2. [Specification, p. 4, ll. 9-10] Bursts of a carrier 201 of 1-2 kHz or so, which activate the cell, occur every other field. [Specification, p. 4, ll. 10-11] When the cell is inactive, the voltage across it is zero. [Specification, p. 4, ll. 11-12] This waveform has a

net DC value of zero volts, with the result that the integral of the voltage applied across the cell over a long period of time is zero. [Specification, p. 4, ll. 12-14]

Issues with the alternating polarity waveform included ion shadow problems, visible horizontal banding, and a reduction in the beneficial effects of bias. [Specification, p. 6, l. 3 – p. 7, l. 14] An alternating unipolar carrier drive waveform was employed that addressed these issues. [Specification, p. 7, ll. 15-21; FIGs. 8 and 9] Referring to FIG. 9, the activation voltage VA is defined by the high and low voltages VAH and VAL. [Specification, p. 7, ll. 29-30] Likewise, the bias voltage VB is defined by high and low bias voltages VBH and VBL. [Specification, p. 7, l. 30 – p. 8, l. 1] The polarity of a particular point in the waveform is arbitrary, because the pattern repeats around zero. {Specification, p. 8, ll. 1-2.

In sum, the present design comprises a new driving waveform, called an Alternating, Unipolar-Carrier waveform, where the cell is driven by a carrier but the carrier never changes polarity within the time period that the cell is energized. [Specification, p. 12, ll. 16-18] Every time the cell is energized (once per field) the polarity alternates. [Specification, p. 12, ll. 18-19]

Claim 1

Regarding the specific language of independent claim 1, the preamble states "A method for driving a segmented pi-cell modulator in a stereoscopic image viewing system," Support for this is found in the Specification at, for example, p. 5, l. 8, and the traditional technique for driving pi-cells is discussed in the Background, including but not limited to p. 1, ll. 12-21, p. 2, l. 1 – p. 3, l. 13, and the discussion of driving a segmented pi-cell modulator in a stereoscopic image viewing system is also presented at p. 12, ll. 3-19: The method comprises "applying an alternating, unipolar-carrier waveform to the segmented pi-cell modulator." Applying an alternating, unipolar carrier waveform to the segmented pi-cell modulator is shown in FIG. 8 and at p. 5, ll. 8-10 and also at p. 7, ll. 15-21 of the Specification. The claim further requires "wherein the alternating, unipolar-carrier waveform does not change polarity within a time period that the segmented pi-cell

modulator is energized." Support for this limitation is at FIG. 8, and also at p. 12, ll. 16-18 and p. 5, ll. 10-11.

Claim 6

Claim 6 recites "A method for driving a segmented pi-cell modulator in a stereoscopic image viewing system." Support for this preamble lanuage may be found at, for example, p. 5, l. 8, and the traditional technique for driving pi-cells is discussed in the Background, including but not limited to p. 1, ll. 12-21, p. 2, l. 1 – p. 3, l. 13, and the discussion of driving a segmented pi-cell modulator in a stereoscopic image viewing system is also presented at p. 12, ll. 3-19. The method comprises "applying a first modulating waveform having a carrier signal of a first polarity to the segmented pi-cell modulator during a first time period, wherein the carrier signal does not change polarity during the first time period." This is shown by, for example, FIG. 8 and the illustration of the waveform provided therein as well as FIG. 9 and the illustration of the waveform provided therein, and in the text at, for example, p. 5, ll. 8-10, p. 7, ll. 15-21 and also at p. 7, l. 29 – p. 8, l. 4 of the Specification. The limitation of "removing the first modulating waveform for a finite period comprising application of de minimis energy" is shown by FIGs. 8 and 9 of the Specification. Finally, the limitation of "applying a second modulating waveform having a carrier signal of a second polarity opposite the first polarity to the segmented pi-cell modulator during a second time period, wherein the carrier signal does not change polarity during the second time period" is shown at, for example, FIG. 8 of the Specification ("applying a second modulating waveform having a carrier signal of a second polarity opposite the first polarity…") and also at p. 12, ll. 16-18 and p. 5, ll. 10-11 ("carrier signal does not change polarity during the second time period").

Claim 11

Claim 11 recites "A stereoscopic image viewing system," discussed at, for example, p. 1, ll. 5-30, and p. 3, ll. 1-13. The claim also recites "a segmented pi-cell modulator" shown, for example, at p. 1, ll. 12-21, a discussion of previous use of such a

device at p. 2, ll. 24-25, and p. 5, ll. 8-10. Claim 11 also recites "a drive circuit for applying an alternating, unipolar carrier waveform to the segmented pi-cell modulator...", shown at, for example, FIG. 8 and at p. 5, ll. 8-10 and also at p. 7, ll. 15-21 of the Specification. Claim 11 also requires "wherein the alternating, unipolar carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized." Support for this limitation is at FIG. 8, and also at p. 12, ll. 16-18 and p. 5, ll. 10-11.

6. Grounds of Rejection to be Reviewed on Appeal

1. Rejection of Claims 6-10 under 35 U.S.C. § 112, second paragraph, as containing allegedly "confusing" subject matter.

2. Rejection of Claims 1-4, 11-14, and 18-20 under 35 U.S.C. §102(a) as being anticipated by FIGs. 1-5 of the present application (Applicants' admitted prior art, or "AAPA").

3. Rejection of claims 5, 10, and 15 under 35 U.S.C. §103 based on AAPA in view of certain alleged general knowledge in the art.

7. Argument

The Office Action and previous Office Actions in this case show a general failure to recognize that FIG. 8 of the present design, and specifically waveform 801, differ from, for example, FIG. 5 and waveform 501 shown in the application. This refusal to acknowledge that these are different waveforms forms the crux of the present dispute, which comes down to the question: what does "alternating unipolar carrier waveform" mean? Appellants have previously amended the claims to recite the specific aspects of the alternating unipolar carrier waveform, such as that shown in FIG. 8, and do not simply employ that phrase without reciting the requirements of such an alternating unipolar carrier waveform operates in each and every pending claim.

Further, and more importantly, the Office Action alleges that FIG. 2 shows an "alternating unipolar carrier waveform" based on a twisted interpretation of what is shown in FIG. 2 that is contrary to the claim language, the use of the term in the specification and illustrations in the drawings, and the Manual for Patent Examining Procedure (MPEP) regarding interpreting a claim when the applicatnt acts as his own lexicographer.

The Office Action continues to profess the belief that FIGs. 2 and 5 are no different from FIG. 8, or state the mistaken belief that claim language regarding waveforms that do not change polarity within a time period that a segmented pi-cell modulator is energized is shown by FIG. 2, which shows an alternating polarity waveform that **does** change polarity within the time period that the segmented pi-cell modulator is energized.

A. Claims 6-10 Particularly Point Out and Sufficiently Claim the Invention and Satisfy §112

The allegation of confusion with the wording of claim 6 is that of the Examiner, not the language employed, which is clear. FIG. 8 shows the alternating unipolar carrier waveform. As may be appreciated, waveform 801 is on for a period of time with the

waveform as shown in FIG. 9, a waveform of a single polarity, and the waveform 801 is off for a period of time, and then the waveform is on for a period of time having a shape as shown in FIG. 9 but of opposite polarity. This is simple and straightforward and completely understandable.

The claim recites:

> *applying a first modulating waveform* having a carrier signal of a first polarity to the segmented pi-cell modulator *during a first time period*, wherein the carrier signal does not change polarity during the first time period;
>
> *removing the first modulating waveform for a finite period* comprising application of de minimis energy

(emphasis added)

The Final Office Action states "The method is confused because it does not clearly disclose why applying a first modulating waveform then removing the first modulating waveform." January 9, 2008 Office Action, p. 2. As best as can be understood, this seems to be questioning why you would apply a first waveform and then remove the first waveform. Appellants submit that you would do this to energize the pi cell for a first period of time and then not energize the pi cell so the pi-cell would not burn up.

More importantly, Appellants submit that this is not a proper basis for a §112 second paragraph rejection. A claim does not need to state "why" something occurs. Section 112 requires that the claims particularly point out and distinctly claim the subject matter which the applicant regards as his invention. Explanation of the invention is the province of the Specification, which requires that the applicant describe to one of ordinary skill in the art how to make and use the invention. Here, Appellants have particularly pointed out and distinctly claimed the invention, which for claim 6 includes,

inter alia, applying a first waveform for a period of time and then removing the first modulating waveform for a finite period.

The claims are sufficiently clear, fully supported by the specification, and particularly point out and distinctly claim the subject matter which the applicant regards as his invention, therefore fully satisfying 35 U.S.C. §112, second paragraph.

B. Claims 1-4, 11-14, and 18-20 are Novel in view of AAPA

The Office Action rejected claims 1-4, 11-14, and 18-20 under 35 U.S.C. §102(a) based on allegedly admitted prior art (AAPA).

Appellants focus this discussion on three drawings and related text in the present specification – FIGs. 2 and 5 versus FIG. 8. These Figures and related text serve to show what "an alternating, unipolar-carrier waveform" is and is not and serve to illustrate the differences between the claims and AAPA.

FIG. 5 is similar to FIG. 2 and illustrates a waveform previously employed to drive pi-cells. As stated in the Specification at p. 4, ll. 9-17:

> Since the inception of pi-cells, they have generally been driven by an **alternating polarity waveform** of the sort shown in FIG. 2. Bursts of a carrier 201 of 1-2 kHz or so, which activate the cell, occur every other field. When the cell is inactive, the voltage across it is zero. This waveform has a net DC value of zero volts, with the result that the integral of the voltage applied across the cell over a long period of time is zero. The cell spends the same amount of time with a positive voltage across it as it does with a negative voltage across it. This is required to prevent the breakdown of the cell through transmigration of the electroplating from one electrode to the other.

(emphasis added).

This waveform is called an "alternating polarity waveform", and includes bursts of pi cell drive energy having both positive and negative values, or periods when energy is applied wherein the energy applied during the period has both positive and negative polarity. Thus previous designs employed an alternating polarity waveform, or waveforms similar to the one pictured in FIGs. 2 and 5.

FIG. 8 illustrates a different waveform – note that each series of pulses or burst when energy is being applied to the pi-cell within the waveform of FIG. 8 either has no positive polarity or no negative polarity. This is referred to by the inventors in the specification as thus termed an "alternating, unipolar-carrier waveform," as differentiated from the "alternating polarity waveform" such as the waveform shown in FIG. 2 or FIG. 5. From the Specification, p. 7, ll. 16-28:

> We created a new type of waveform that has a carrier, but where the carrier does not cross through zero. We called this waveform an **<u>Alternating Unipolar Carrier System</u>**. FIG. 8 shows the photometer measurement of the response of a cell driven by an Alternating Unipolar Carrier. The upper trace 801 shows the drive waveform, and the bottom trace 802 shows the photometer output.
>
> The advantage of the **<u>Alternating, Unipolar-Carrier waveform</u>** is that it has less of a visible artifact than the conventional carrier waveform but reduces the appearance of ion migration defects compared to the quasi-static waveform. The peak activation voltage, the intermediate activation voltage, and the nature and values of bias all have an impact on the image quality....

(emphasis added)

The term "unipolar" means having a single pole or polarity – here, either positive or negative as shown in FIG. 8. The FIG. 2 waveform is not "unipolar," but as noted, is an alternating polarity waveform.

Claim 1

Claim 1 requires "applying an alternating, unipolar-carrier waveform to the segmented pi-cell modulator, wherein the carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized." Applying an alternating unipolar-carrier waveform means applying a single pole or polarity waveform, either positive or negative, which the waveform of FIGs. 2 and 5 are not. FIGs. 2 and 5 illustrate applying an alternating polarity waveform – both positive and negative polarities, alternating between the two. Further, claim 1 expressly states that "the carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized." FIG. 2 does not show this – indeed, FIG. 2 shows that the waveform ***does*** change polarity within the time period that the pi-cell modulator is energized. Each burst of energy in FIG. 2, which energizes the pi-cell as described in the specification, changes polarity from positive to negative. The waveform of FIG. 8 does not do this – again, it is either positive when the pi-cell is energized or negative when the pi-cell is energized, but in either case it is unipolar.

The Office Action simply states that FIG. 2 shows an "alternating unipolar carrier waveform," which, as noted above, it does not. Office Action, p. 2. The Office Action goes on to state that the carrier waveform not changing polarity "within a time period (i.e., the time period for applying positive voltage) that the segmented pi-cell modulator is energized" is shown by FIG. 2 and the Specification, p. 3 l. 29 – p. 4, l. 17. The pertinent paragraph from this cited range is the paragraph at p. 4, ll. 9-17, reproduced above, which says that the alternating polarity waveform is employed.

The Office Action is improperly interpreting the claim language and the terminology employed in the Specification. While claims are to be given their broadest interpretation when being examined in the Patent Office, an Applicant may be his own

lexicographer. M.P.E.P. §2111.01(IV). Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings"). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998); *see also Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999) and MPEP §2173.05(a). The specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning of a claim term when applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in the context in the specification. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*); and *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996).

The term "alternating unipolar carrier waveform" is specifically defined by Appellants in the Specification. Appellants have clearly spelled out a definition for an alternating unipolar carrier waveform in the Specification, including but not limited to the text at p. 5, ll. 8-15, p. 7, ll. 15-21 and illustrated as upper trace 801 in FIG. 8, the illustration of FIG. 9 ("FIG. 9 shows the parameters of the alternating unipolar carrier", p. 5, l. 26) and the accompanying text at p. 7, l. 29 – p. 8, l. 4 and the clear explanation of operation at p. 12, ll. 16-19. The allegation that FIG. 2 shows an alternating unipolar carrier waveform is therefore contrary to the clear description and depiction in the specification and employs a claim interpretation contrary to MPEP §§2111.01(IV) and 2173.05(a).

Further, Appellants do not understand what is being alleged in FIG. 2 satisfies the claim language - is the Office Action arguing that individual pulses in FIG. 2, such as one

positive pulse in the first (leftmost) energy burst of the waveform of FIG. 2, satisfy the claim language?[1] FIG. 2 shows five separate, individual positive pulses within the first driving energy burst, each followed by a negative pulse. Even if this is being relied on, namely that a single positive burst forms an "alternating unipolar carrier waveform," this is not correct, as it is not "alternating" as that word is understood, particularly based on the use of the word "alternating" in the present specification. Further, "the alternating, unipolar-carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized" indicates the carrier does not change polarity when the pi-cell is energized. This cannot be said for the waveform of FIG. 2, either in its entirety or in parts of the waveform. The pi-cell is energized and the alternating polarity waveform is applied for a period of time, such as a burst of five positive and five negative pulses, and subsequently the alternating polarity waveform is turned off and de minimis energy is applied. Thus the alternating polarity waveform of FIG. 2 ***does*** change polarity "within a time period that the segmented pi-cell modulator is energized," even if only attempting to account for each individual pulse in the multiple burst pulse.

---

[1] The Office Action responds to the contention that FIG. 2 does not show an alternating unipolar carrier waveform by producing a drawing with a box around a "t1" designation in the "finite period comprising application of de minimis energy" (claim 6) portion of FIG. 2, stating

> "Fig. 2 below show that in the time period t1 that the pi-cell modulator is energized, when the cell is active, the waveform has positive polarity within the period t1; accordingly, fig. 2 show an alternating unipolar carrier waveform within the time period t1."

Office Action, p. 4.

Appellants understand this Office Action passage to be stating that the second burst period, wherein the waveform 201 alternates between positive and negative values allegedly includes positive polarity values and thus satisfies the "alternating unipolar carrier waveform" limitation. This is wrong for multiple reasons. This assertion is contrary to the definition and depiction of an alternating unipolar carrier waveform in the Specification and is contrary to the further express limitation in, for example, claim 1 which states "wherein the alternating, unipolar-carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized." FIG. 2 does change polarity. FIG. 2 does not satisfy the "alternating unipolar carrier wavefom" limitation. The twisted interpretation in the Office Action of the "alternating unipolar carrier waveform" is contrary to the claim language, the definition and depiction of an alternating unipolar carrier waveform in the specification, and MPEP §§2111.01(IV) and 2173.05(a).

Claim 11

Similar to claim 1, claim 11 requires "applying an alternating, unipolar carrier waveform to the segmented pi-cell modulator, wherein the alternating, unipolar carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized." As with claim 1, AAPA and specifically FIG. 2 does not show an alternating unipolar carrier waveform as discussed above. Further, as discussed above, the waveform of FIG. 2 ***does*** "change polarity within a time period that the segmented pi-cell modulator is energized." Thus, as with claim 1, claim 11 is not anticipated by AAPA.

Claim 6

Claim 6 recites:

> applying a first modulating waveform having a carrier signal of a first polarity to the segmented pi-cell modulator during a first time period, wherein the carrier signal does not change polarity during the first time period;
>
> removing the first modulating waveform for a finite period comprising application of de minimis energy; and
>
> applying a second modulating waveform having a carrier signal of a second polarity opposite the first polarity to the segmented pi-cell modulator during a second time period, wherein the carrier signal does not change polarity during the second time period

The first waveform is said to be "modulating" and has a first polarity, where the signal "does not change polarity" during the first time period. Similar to claim 1, neither FIG. 2 nor FIG. 5 shows a waveform that is "modulating" and "does not change polarity" as claimed. The waveform of FIG. 2 and FIG. 5 **does** change polarity.

After application of de minimis energy, a second "modulating" waveform having a carrier signal of a second polarity is applied. The second modulating waveform has polarity opposite the first polarity. Also, the signal does not change polarity during the second time period. This is not shown by AAPA, and particularly FIG. 2, which shows an alternating polarity (positive-negative) waveform. Thus the waveform of FIG. 2 does not contain a carrier signal of a second polarity, opposite the first polarity. As previously discussed, within the FIG. 2 waveform, the signal ***does*** change polarity during the second time period. Again, reliance on only a part of the waveform of FIG. 2 does not conform to the limitations of this claim 6. As a result, AAPA does not anticipate claim 6.

Claims depending from allowable claims 1, 6, and 11 are allowable as they include limitations not found in the cited reference based at least in part on their dependence from allowable base claims.

Accordingly, it is respectfully submitted that all pending claims fully comply with 35 U.S.C. § 102.

C. Claims 5, 10, and 15 are Unobvious based on AAPA in View of Alleged, Unsupported General Knowledge in the Art

Appellants separately argue the propriety of certain dependent claim rejections, namely the "short rest period"/"100 millisecond" limitations of claims 5, 10, and 15.

The Office Action further rejects claims 5, 10, and 15 by asserting the claimed 100 millisecond short rest period would have been obvious, without citing a reference. Appellants submit that the Office Action is simply making this allegation with no support in an effort to deprecate Appellants' invention. Failure to provide support for a §103 rejection mandates that nothing – no evidence whatsoever - has been provided in support of the rejection beyond the AAPA.

The Office Action therefore relies on no specific reference in rejecting the limitation "wherein the small rest period is approximately a few hundred milliseconds." Rather, such a rejection relies in part on purported knowledge of one skilled in the art at

the time of the invention. Thus in accordance with 37 C.F.R. § 1.104 (d)(2) and to preserve Appellants' argument on appeal, Appellants had requested that the Examiner provide an affidavit that supports the rejection of the claims based on the official notice, common knowledge, or personal knowledge of the Examiner, or provide a reference demonstrating the purported common knowledge. *See In re Lee*, 277 F.3d 1338, 1344-45, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002) (finding that reliance on "common knowledge and common sense" did not fulfill the PTO's obligation to cite references to support its conclusions, as PTO must document its reasonings on the record to allow accountability and effective appellate review); *see also, In re Zurko*, 59 USPQ2d 1693 (Fed. Cir. 2001) ("This assessment of basic knowledge and common sense was not based on any evidence in the record and, therefore, lacks substantial evidence support. ... With respect to core factual findings in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding or experience -- or on its assessment of what would be basic knowledge or common sense"); Manual of Patent Examining Procedure 2144.03 ("If the applicant traverses [] an assertion [that a concept is 'well known' or 'matters of common knowledge'] the examiner should cite a reference in support of his or her position.").

Despite Appellants' requests, the Examiner failed during prosecution to produce a reference or references showing a small rest period of less than approximately 100 milliseconds in connection with an alternating, unipolar-carrier waveform applied to a segmented pi-cell modulator, wherein the carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized, together with a motivation to combine the references found within the references themselves, or an affidavit in support of the rejection.

Based on the failure of the Examiner to produce a reference or an affidavit in support of the rejection, Appellants contend that nothing is being relied on to reject the claims under 35 U.S.C. 103 beyond AAPA, which does not show the 100 millisecond limitation. The recent KSR case has not contradicted the Graham v. John Deere requirements (*Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966)), which

require that "Under §103, the scope and content of the prior art are to be determined." *Id.* at 17. Here, the scope of the prior art is only that which is on record, namely AAPA, which does not show the 100 millisecond limitation, and use of a 100 millisecond limitation would not be obvious based on FIGs. 1-5 of the present application. For this further reason, claims 5, 10, and 15 are separately patentable.

Accordingly, it is respectfully submitted that all pending claims fully comply with 35 U.S.C. § 103.

CONCLUSION

In view of the foregoing, Appellants submit that all pending claims are patentably distinct over the prior art and are allowable. Thus the Final Office Action rejecting all pending claims is in error and should be reversed.

Appellants believe that no fees are due in accordance with this Appeal Brief beyond those included herewith. Should any additional fees be due or overpayment made, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account 502026.

Respectfully submitted,

Date: July 14, 2008

Steven W. Smyrski, Esq.
Registration No. 38,312

SMYRSKI LAW GROUP, A PROFESSIONAL CORPORATION
3310 Airport Avenue, SW
Santa Monica, California 90405-6118
Phone: 310.397.9118
Fax: 310.397.9158

8. CLAIMS APPENDIX

1. A method for driving a segmented pi-cell modulator in a stereoscopic image viewing system, comprising applying an alternating, unipolar-carrier waveform to the segmented pi-cell modulator, wherein the alternating, unipolar-carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized.

2. A method as in claim 1, wherein the waveform is in the range of 1-2 kHz.

3. A method as in claim 1, wherein a stutter start waveform is applied to the segmented pi-cell modulator for a brief period of time when power is first applied.

4. A method as in claim 3, wherein the stutter start waveform is a series of pulses separated by a small rest period.

5. A method as in claim 4, wherein the small rest period is approximately a few hundred milliseconds.

6. A method for driving a segmented pi-cell modulator in a stereoscopic image viewing system, comprising:

applying a first modulating waveform having a carrier signal of a first polarity to the segmented pi-cell modulator during a first time period, wherein the carrier signal does not change polarity during the first time period;

removing the first modulating waveform for a finite period comprising application of de minimis energy; and

applying a second modulating waveform having a carrier signal of a second polarity opposite the first polarity to the segmented pi-cell modulator during a second time period, wherein the carrier signal does not change polarity during the second time period.

7. A method as in claim 6, wherein the waveform is in the range of 1-2 kHz.

8. A method as in claim 6, wherein a burst of pulses is applied to the segmented pi-cell modulator for a brief period of time when power is first applied.

9. A method as in claim 8, wherein each of the burst of pulses is separated by a small rest period.

10. A method as in claim 9, wherein the small rest period is approximately a few hundred milliseconds.

11. A stereoscopic image viewing system, comprising:

a segmented pi-cell modulator; and

a drive circuit for applying an alternating, unipolar carrier waveform to the segmented pi-cell modulator, wherein the alternating, unipolar carrier waveform does not change polarity within a time period that the segmented pi-cell modulator is energized.

12. A system as in claim 11, wherein the carrier waveform is in the range of 1-2 kHz.

13. A system as in claim 11, wherein a burst of pulses is applied to the segmented pi-cell modulator for a brief period of time when power is first applied.

14. A system as in claim 13, wherein each of the burst of pulses is separated by a small rest period.

15. A system as in claim 14, wherein the small rest period is approximately a few hundred milliseconds.

16. A method as in claim 1, wherein the alternating, unipolar-carrier waveform comprises a plurality of modulating waveforms separated by periods of application of de minimis energy.

17. A method as in claim 11, wherein the alternating, unipolar carrier waveform comprises a plurality of modulating waveforms separated by periods of

application of de minimis energy.

18. A method as in claim 1, wherein applying the alternating, unipolar carrier waveform to the segmented pi-cell modulator tends to reduce likelihood of at least one from a group comprising ion shadow defects and visible artifacts being exhibited by the segmented pi-cell modulator.

19. A method as in claim 6, wherein applying the first modulating waveform and second modulating waveform to the segmented pi-cell modulator tends to reduce likelihood of at least one from a group comprising ion shadow defects and visible artifacts being exhibited by the segmented pi-cell modulator.

20. A method as in claim 11, wherein wherein applying the alternating, unipolar carrier waveform to the segmented pi-cell modulator tends to reduce likelihood of at least one from a group comprising ion shadow defects and visible artifacts being exhibited by the segmented pi-cell modulator.

9. EVIDENCE APPENDIX

None.

10. RELATED PROCEEDINGS APPENDIX

None.